



 a negative electrode; and


a solid electrolyte disposed between the positive and negative electrodes;


the solid electrolyte comprising a matrix polymer comprising a fluorocarbon polymer having a weight-average molecular weight of at least 550,000.

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11. The solid-electrolyte secondary battery of Claim 10 wherein the matrix polymer further comprises a fluorocarbon polymer having a weight-average molecular weight of greater than 300,000 and less than 550,000, and a fluorocarbon polymer having a weight-average molecular weight of at least 550,000.


 12. The solid-electrolyte secondary battery of Claim 110 wherein the matrix polymer comprises 30 percent or more by weight of the fluorocarbon polymer that has a weight-average molecular weight of at least 550,000.

45  13. The solid-electrolyte secondary battery of Claim 10 wherein the fluorocarbon polymer is polyvinylidene fluoride or polyvinylidene fluoride/hexafluoropropylene copolymer.

 14. The solid-electrolyte secondary battery of Claim 10 wherein at least one of the positive and negative electrodes comprises a binder comprising a polymer material having a molecular structure that is the same or similar to the matrix polymer of the solid electrolyte.

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15. The solid-electrolyte secondary battery of Claim 10 wherein the negative electrode comprises a material into or from which a lithium ion can be inserted or extracted.

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16. The solid-electrolyte secondary battery of Claim 15 wherein the material into or from which a lithium ion can be inserted or extracted is a carbon material.

17. The solid-electrolyte secondary battery of Claim 10 wherein the positive electrode comprises a composite oxide of lithium and a transition metal.

18. The solid-electrolyte secondary battery of Claim 10 wherein the positive electrode has a face which is directed towards the negative electrode and the solid-electrolyte layer is formed on the face of the positive electrode and impregnates into said face a solution in which the solid electrolyte is dissolved.

19. The solid-electrolyte secondary battery of Claim 10 wherein the negative electrode has a face directed toward the positive electrode and the solid-electrolyte layer is formed on said face and impregnates into said face a solution in which the solid electrolyte is dissolved.

REMARKS

The above amendments are solely editorial and are made only for the purpose of conforming the present PCT application to the requirements of United States patent practice. No new matter is added thereby.